CONTENTS

Vol. 45, No. 1, March, 1975

Depositional cycles in two turbidite formations of northern Apennines (Italy) ..... *Franco Ricci-Lucchi* 3

Textural and mineralogical sorting relationships in Krosno Formation (Oligocene) Turbidites, Polish Carpathian mountains .... *Gerald L. Shideler, Andrzej Ślaczka, Rafał Unrug, and Marek Wendorff* 44

Distinguishing bottom and turbidity current coarse layers on the Continental Rise ..... *Steven J. Fritz and Orrin H. Pilkey* 57

Matilija Sandstone: A transition from deep-water turbidite to shallow-marine deposition in the Eocene of California ..... *Martin H. Link* 63

The transgression of a hard substrate shelf: the Llandovery (Lower Silurian) of the Welsh Borderland ..... *Paul H. Bridges* 79

Statistical appraisal of Molteno (Triassic) sedimentary cycles from the upper part of the Karroo (Gondwana) system in South Africa .... *B. R. Turner* 95

Upper Cretaceous resedimented conglomerates at Wheeler Gorge, California: Description and field guide ..... *Roger G. Walker* 105

A note on three unusual sedimentary structures in sandstone of the Auborus Formation, South West Africa ..... *R. McG. Miller* 113

A petrographic reconnaissance of sand size sediment upper St. Francis River, Southeastern Missouri ..... *Paul S. Shukis and Frank G. Ethridge* 115

Stratification by in-fauna debris: A structure, a mechanism and a comment ..... *Raymond Keary and Brendan F. Keegan* 128

Origin of parallel, near-horizontal laminae by migration of bed forms in a small flume ..... *E. F. McBride, R. G. Shepherd, and R. A. Crawley* 132

Petrologic changes in fluvial sediments in the Rio Nautla drainage basin, Veracruz, Mexico ..... *Robert P. Self* 140

Post Pleistocene island and inlet adjustment along the Georgia coast .... *George F. Oertel* 150

The fate of a fine-grained dredge spoils deposit in a tidal channel of Puget Sound, Washington ..... *Charles A. Nittrouer and Richard W. Sternberg* 160

Sources of suspended matter in waters of the Middle Atlantic Bight .... *Robert H. Meade, Peter L. Sachs, Frank T. Manheim, John C. Hathaway, and Derek W. Spencer* 171

Oceanography and suspended matter off the Amazon River February–March 1973 .... *John D. Milliman, Colin P. Summerhayes, and Henyo T. Barretto* 189

Bishop Ash: A widespread volcanic ash extended to southern California .... *Richard Merriam and James L. Bischoff* 207

Did the worm turn? Deformed burrow as a slump movement indicator .... *Edward C. Beutner* 212

Acetate peel techniques applied to cherts ..... *Ilfryn Price* 215

On the efficiency of systematic point-sampling in mapping facies .... *Richard M. McCammon* 217

CONTENTS

Vol. 45, No. 1, March, 1975

Depositional cycles in two turbidite formations of northern Apennines (Italy) ..... *Franco Ricci-Lucchi* 3

Textural and mineralogical sorting relationships in Krosno Formation (Oligocene) Turbidites, Polish Carpathian mountains .... *Gerald L. Shideler, Andrzej Ślaczka, Rafał Unrug, and Marek Wendorff* 44

Distinguishing bottom and turbidity current coarse layers on the Continental Rise ..... *Steven J. Fritz and Orrin H. Pilkey* 57

Matilija Sandstone: A transition from deep-water turbidite to shallow-marine deposition in the Eocene of California ..... *Martin H. Link* 63

The transgression of a hard substrate shelf: the Llandovery (Lower Silurian) of the Welsh Borderland ..... *Paul H. Bridges* 79

Statistical appraisal of Molteno (Triassic) sedimentary cycles from the upper part of the Karroo (Gondwana) system in South Africa .... *B. R. Turner* 95

Upper Cretaceous resedimented conglomerates at Wheeler Gorge, California: Description and field guide ..... *Roger G. Walker* 105

A note on three unusual sedimentary structures in sandstone of the Auborus Formation, South West Africa ..... *R. McG. Miller* 113

A petrographic reconnaissance of sand size sediment upper St. Francis River, Southeastern Missouri ..... *Paul S. Shukis and Frank G. Ethridge* 115

Stratification by in-fauna debris: A structure, a mechanism and a comment ..... *Raymond Keary and Brendan F. Keegan* 128

Origin of parallel, near-horizontal laminae by migration of bed forms in a small flume ..... *E. F. McBride, R. G. Shepherd, and R. A. Crawley* 132

Petrologic changes in fluvial sediments in the Rio Nautla drainage basin, Veracruz, Mexico ..... *Robert P. Self* 140

Post Pleistocene island and inlet adjustment along the Georgia coast .... *George F. Oertel* 150

The fate of a fine-grained dredge spoils deposit in a tidal channel of Puget Sound, Washington ..... *Charles A. Nittrouer and Richard W. Sternberg* 160

Sources of suspended matter in waters of the Middle Atlantic Bight .... *Robert H. Meade, Peter L. Sachs, Frank T. Manheim, John C. Hathaway, and Derek W. Spencer* 171

Oceanography and suspended matter off the Amazon River February–March 1973 .... *John D. Milliman, Colin P. Summerhayes, and Henyo T. Barretto* 189

Bishop Ash: A widespread volcanic ash extended to southern California .... *Richard Merriam and James L. Bischoff* 207

Did the worm turn? Deformed burrow as a slump movement indicator .... *Edward C. Beutner* 212

Acetate peel techniques applied to cherts ..... *Ilfryn Price* 215

On the efficiency of systematic point-sampling in mapping facies .... *Richard M. McCammon* 217

The petrology and origin of some glauconitic and glauco-conglomeratic phosphorites from the South African continental margin ..... *Robin J. Parker* 230

Marine phosphorite formation off Peru ..... *Frank Manheim, Gilbert T. Rowe, and Dan Jipa* 243

Origin and distribution of silica lepispheres in porcelanite from the Monterey Formation of California ..... *John H. Oehler* 252

Ferro-magnesian calcite cement in sandstones ..... *A. Jack Nash and Edward D. Pittman* 258

Calcisphere ultrastructure and skeletal aragonite from the alga *Acetabularia antillana* ..... *D. S. Marszalek* 266

Kaolinite and other clay minerals in Arctic Ocean sediments .. *Dennis A. Darby* 272

Backshore heavy-mineral concentration on Sapelo Island, Georgia ..... *James R. Woolsey, Vernon J. Henry, and Jesse L. Hunt* 280

High-magnesium calcite ooids from the Great Barrier Reef ..... *John F. Marshall and Peter J. Davies* 285

Cariaco trench-sediment geotechnical properties .. *G. H. Keller and L. L. Minter* 292

Lake Chad: Geochemistry and sedimentary aspects of a shallow polymictic lake ..... *John S. Mothersill* 295

Trace metal relationships in bottom sediments of a fresh water stream—the Buffalo River, Arkansas ..... *Kenneth F. Steele and George H. Wagner* 310

Diagenesis in Tertiary sandstones from Kettleman North Dome, California. I. Diagenetic mineralogy ..... *Enrique Merino* 320

Sediment response to the present hydraulic regime on the Central New Jersey shelf ..... *William L. Stubblefield, J. William Lavelle, Donald J. P. Swift, and Thomas F. McKinney* 337

DISCUSSIONS

Discussion of "Internal geometry and origin of vegetated coastal sand dunes" ..... *D. H. Yaalon* 359

The threshold of sediment movement under oscillatory waves: A Discussion ..... *Ole S. Madsen and William D. Grant* 360

Reply. On the comparison between the threshold of sediment motion under waves and unidirectional currents with a discussion of the practical evaluation of the threshold .... *Paul D. Komar and Martin C. Miller* 362

BOOK REVIEWS 368

ANNOUNCEMENTS 374

CONTENTS

Vol. 45, No. 2, June, 1975

Address of the Retiring President, Society of Economic Paleontologists and Mineralogists. The making and unmaking of limestones or the downs and ups of porosity ..... *Gerald M. Friedman* 379

Post-compactional calcitization of molluscan aragonite in a Jurassic limestone from Saskatchewan, Canada ..... *A. C. Kendall* 399

Pseudo- and dubiofossils from the Newland limestone (Belt supergroup, Late Precambrian), Montana ..... *Allan M. Gutstadt* 405

Distribution of *Halimeda* plants and sediments on and around a patch reef near Old Rhodes Key, Florida .. *Stephen K. Wiman and William G. McKendree* 415

Holocene carbonate sedimentation, Matecumbe Keys tidal bank, South Florida ..... *W. J. Ebanks, Jr. and J. N. Bubb* 422

Chemical and isotopic composition of carbonates in recent sediments and soils from Western Europe ..... *W. Salomons* 440

Bathymetry and sediment distribution in proglacial Malaspina Lake, Alaska ..... *Thomas C. Gustavson* 450

Clastic sedimentation in a modern Alpine lake .... *David Mankiewicz, James R. Steidtmann, and Leon E. Borgman* 462

New observations on the Pleistocene evaporites of Montallegro, Sicily and a modern analog ..... *B. Charlotte Schreiber and David J. J. Kinsman* 469

An alluvial plain and lacustrine model for the Precambrian Witwatersrand deposits of South Africa ..... *Richard G. Vos* 480

A reconnaissance survey of the cover sands in the Republic of Botswana .... *Thomas A. Baillieul* 494

Geotechnical and chemical property relationships for Wilkinson Basin, Gulf of Maine, sediments ..... *Matthew H. Hulbert and David N. Given* 504

Progressive pedogenesis of Eolianite sandstone ..... *Abraham J. Amiel* 513

Eolian contributions to marine sediments ..... *Herbert L. Windom* 520

Origin of surface pits on quartz as revealed by scanning electron microscopy ..... *V. Subramanian* 530

The association of alluvial fan, aeolian and fluviatile facies in the Caherbla group (Devonian), Dingle Peninsula, Ireland ..... *Ralph R. Horne* 535

Effect of staining on microprobe determination of iron in carbonates .... *Sheldon Sommer* 541

An inexpensive plate holder for the suction-on-ceramic-plate method of mounting clay minerals for semi-quantitative analysis ..... *Richard W. Carlton* 543

A regression technique for the analysis of shales by X-ray diffractometry .... *John M. Cubitt* 546

Small scale aeolian bedforms .... *John M. Ellwood, Peter D. Evans, and Ian G. Wilson* 554

Density-current strata in Lower Cretaceous Washita group, North-central Texas ..... *Robert W. Scott, Hooman Laali, and David W. Fee* 562

DISCUSSION

Discussion of prophylactic separation of heavy minerals .. *Gretchen Luepke* 576

BOOK REVIEWS 577

ERRATA 585

ANNOUNCEMENTS 585

SOCIETY RECORDS AND ACTIVITIES

SEPM Officer Nominees, 1976–1977 586

CONTENTS

Vol. 45, No. 3, September, 1975

Laterites and flint clays in the Early Permian of the Sydney Basin, Australia, and their paleoclimatic implications ..... *F. C. Loughnan* 591

Sparitization of a pelleted limestone: A case study of carbon and oxygen isotopic composition ..... *Mordeckai Magaritz* 599

Limestone formation and dolomitization in a lower proterozoic succession from South Africa ..... *K. A. Eriksson, T. S. McCarthy and J. F. Truswell* 604

Mottled Upper Ordovician carbonates in Northwest Georgia .... *Frederick H. Manley, David E. Ogren, and Lyndall C. Webb* 615

Genesis of chlorite pellets from Mesozoic bedded cherts of Sicily .... *Marco Leone, Rosario Alaimo and Salvatore Calderone* 618

Variability of zircons from the Sharon conglomerate of Northeastern Ohio ..... *R. A. Heimlich, L. B. Shotwell, T. Cookro, and M. J. Gawell* 629

Feldspar–grain size relations in Cambrian arenites, Upper Mississippi Valley ..... *I. Edgar Odom* 636

Stratigraphic analysis of the Navajo sandstone .... *William E. Freeman and Glenn S. Visher* 651

Late Cretaceous sedimentation in a low-energy coastal zone: The Ferron sandstone of Utah ..... *Edward Cotter* 669

Petrology and origin of fecal pellets in Upper Cretaceous strata of Kansas and Saskatchewan ..... *Donald E. Hattin* 686

The initiation of oscillatory ripple marks and the development of plane-bed at at high shear stresses under waves .. *Paul D. Komar and Martin C. Miller* 697

Downstream changes in shape in the pebble morphometry of the Tambo River, eastern Victoria ..... *Albert Goede* 704

Primary fluvial oolites ..... *Donald E. McGannon, Jr.* 719

Physical parameter distribution patterns in bottom sediments of the lower Chesapeake Bay estuary, Virginia ..... *Gerald L. Shideler* 728

Turbidite origin of Glaciolacustrine sediments, Woodcock Lake, Pennsylvania ..... *Samuel S. Harrison* 738

A simple method for determining calcium carbonate in sediment samples .... *B. J. Presley* 745

DISCUSSION

Supercritical flow in density currents: A Discussion ..... *Paul D. Komar* 747

Supercritical flow in density currents: Reply ..... *Bryce M. Hand* 750

BOOK REVIEWS 754

ANNOUNCEMENTS 760

SOCIETY RECORDS AND ACTIVITIES i

SEPM 50th Anniversary Meeting i

SEPM Awards ii

Reports and Minutes of the 49th Annual Meeting of SEPM iv

SEPM Convention photos xxi

CONTENTS

Vol. 45, No. 4, December, 1975

Lime mud deposition and calcareous algae in the Bight of Abaco, Bahamas: A budget ..... *A. Conrad Neumann and Lynton S. Land* 763

A deeper water mud mound facies in the Alps ..... *Avinash C. Mathur* 787

Derivation of fragmentary oolites and pisolites from desiccation cracks .... *D. R. Adeleye* 794

Association of lithologies and sedimentary structures in marine deltaic paleoenvironments ..... *Robert G. Sutton and George R. Ramsayer* 799

Significance of authigenic K-feldspar in Cambrian-Ordovician carbonate rocks of the Proto-Atlantic Shelf in North America .... *M. Raymond Buyce and Gerald M. Friedman* 808

Oceanography and suspended matter off northeastern Brazil .... *Henyo T. Barretto and Colin P. Summerhayes* 822

Competence of fine-grained debris flows ..... *Monty A. Hampton* 834

Significance of textural variations, Baltimore Canyon Trough area .... *Harley J. Knebel* 845

Process-response patterns in beach and nearshore sedimentation: I. Mustang Island, Texas ..... *Richard A. Davis, Jr., and William T. Fox* 852

Computer simulation models of a hooked beach shoreline configuration .... *C. Cary Rea and Paul D. Komar* 866

Re-evaluation of the use of undulatory extinction and polycrystallinity in detrital quartz for provenance interpretation ..... *Abhijit Basu, Steven W. Young, Lee J. Suttner, W. Calvin James, and Greg H. Mack* 873

Quantitative fabric analysis of Drammen clay using X-ray diffraction technique ..... *A. Kazi* 883

Tea kettle carbonates ..... *John C. Butler* 891

Recent calcareous stromatolites from Laguna Mormona (Baja California) Mexico ..... *Robert J. Horodyski and Stephen P. Vonder Haar* 894

The petrology of a composite vertical section of Cincinnatian series limestones (Upper Ordovician) of southwestern Ohio, southeastern Indiana, and northern Kentucky ..... *Wayne D. Martin* 907

Hydrodynamic implications of beach, beach ridge and dune grain size studies ..... *Frank W. Stapor and William F. Tanner* 926

Penecontemporaneous recumbent folds in trough cross-bedding of Pleistocene sands in Saskatchewan, Canada .... *Hugh E. Hendry and Mel R. Stauffer* 932

Downward injection structures in Miocene sediments, Arikaree Group, Nebraska ..... *H. A. Bart* 944

DISCUSSION

Replacement of fossils by length-slow chalcedony and associated dolomitization: by Alonzo D. Jacka: Jour. Sed. Petrology, v. 44, p. 421–427 ..... *Craig B. Hatfield* 951

Third-party reply to Hatfield: Discussion of Jacka, A. D., 1974, "Fossils by length-slow chalcedony and associated dolomitization: Jour. Sed. Petrology, v. 44, p. 421–427" ..... *Robert L. Folk* 952

BOOK REVIEWS 953
ANNOUNCEMENTS 955
ANNUAL INDEX 957
COMBINED CONTENTS i